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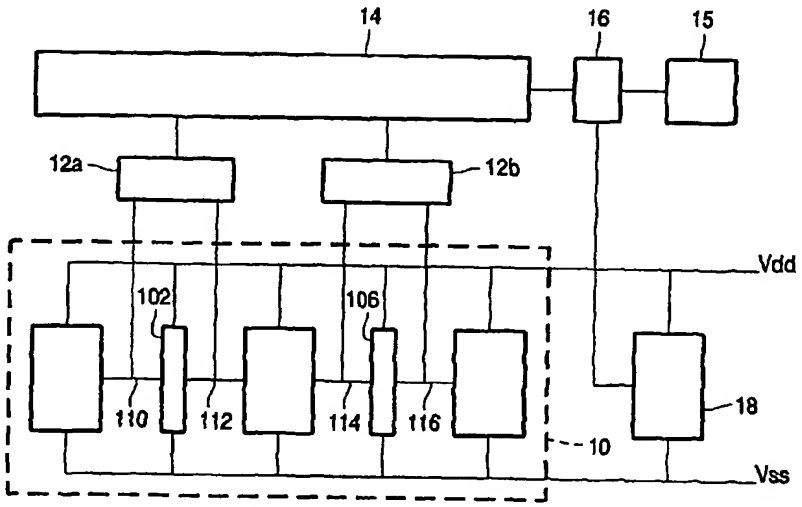
(54) Title: ELECTRONIC CIRCUIT DEVICE FOR CRYPTOGRAPHIC APPLICATIONS




(57) Abstract: The electronic circuit executes operations dependent on secret information. Power supply current dependency on the secret information is cloaked by drawing additional power supply current. A plurality of processing circuits (102, 106) executes respective parts of the operations dependent on the secret information. An activity monitor circuit (12a, b, 14), coupled to receive pairs of processing signals coming into and out of respective ones of the processing circuits, derive activity information from each pair of processing signals. The activity monitoring circuit (12a, b, 14) generates a combined activity signal indicative of a sum of power supply currents that will be consumed by the processing circuits (102, 106) dependent on the processing signals. A current drawing circuit connected to the power supply connections is controlled by the activity monitor circuit (12a, b, 14) to draw a cloaking current controlled by the combined activity signal, so that power supply current variations dependent on the secret information are cloaked in a sum of the cloaking current and current drawn by the processing circuits (102, 106).

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

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| X | US 6 498 404 B1 (THUERINGER, ULLY, ARNOLD, EBER) 24 December 2002 (2002-12-24)<br>cited in the application<br>abstract; figure 2<br>column 2, line 39 - column 3, line 13 | 1-7 |
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